WHAT IS CLAIMED IS:

1.   A method for archiving data from a first disk-based storage device to a second disk-based storage device, the method comprising:

moving an emulated tape from a first element to a second element simulatively without actually moving data associated with the emulated tape;

transmitting the data associated with the emulated tape from the first disk-based storage device to the second disk-based storage device via a communication link; and

removing the data associated with the emulated tape from the first disk-based storage device.

2.   The method of claim 1, wherein the first storage device is a disk array unit, and the second storage device is a disk array unit.

3.   The method of claim 1, further comprising:

generating a first management table associating a storage location on the first disk-based storage device to an emulated tape storage location.

4.   The method of claim 3, further comprising:

changing storage information on the first management table after moving the emulated tape from the first element to the second element to indicate the movement of the emulated tape.

5.   The method of claim 4, wherein the storage information changed is information provided on a storage field of the first management table.

6.   The method of claim 3, wherein the first management table is stored in a memory in a storage controller of the first disk-based storage device.

7.   The method of claim 1, further comprising:

generating a second management table associating a plurality of emulated tapes to a plurality of emulated storage tape locations.

8.   The method of claim 7, wherein the second management table is stored in a server coupled to the first storage device.

9.   The method of claim 8, further comprising:

2   indicating the movement of the emulated tape from the first element to the

3   second element on the second management table.

1   10.   The method of claim 1, wherein the first element is an emulated tape

2   storage area and the second element is an emulated tape import/export element.

1   11.   A method for transferring data in a storage system including a first

2   storage subsystem and a second storage subsystem, the method comprising:

1   associating data stored in the first storage subsystem to a plurality of emulated

2   tapes;

3   generating a first management table associating a plurality of storage locations

4   on the first storage subsystem to a plurality of emulated tape storage locations;

5   generating a second management table, the second table associating the

6   plurality of emulated tapes to the plurality of emulated storage tape locations in the first

7   storage subsystem;

8   moving one of the emulated tapes from a first element to a second element

9   simulatively;

10   transmitting data associated with the one emulated tape from the first storage

11   subsystem to the second storage subsystem via a communication link; and

12   removing the data associated with the one emulated tape from the first storage

13   subsystem upon confirming the transmission of the data associated with the one emulated

14   tape.

1   12.   The method of claim 11, wherein the first and second storage system

2   systems are disk array units, the method further comprising:

3   providing a graphic user interface to schedule a self-check operation; and

4   receiving a selection on the graphic user interface from an administrator, the

5   selection providing information about a self-check to be performed in the future by the

6   second storage system.

1   13.   The method of claim 11, wherein first management table is stored in a

2   controller module of the first storage subsystem and the second management table is stored in

3   a server coupled to the first storage subsystem.

1   14.   The method of claim 11, further comprising:

15

2   receiving the data associated with the one emulated tape at the first storage

3 subsystem from the second storage subsystem after the removing step to reactivate the data

4 associated with the one emulated tape.

1   15. A disk array unit, comprising:

2   a storage area including a plurality of magnetic disks for storing data; and

3   a storage controller including a processor to regulate data flow into and out of

4 the storage area, a memory to store information needed to manage the storage area, a first

5 interface coupling the disk array unit to a server, and a second interface to couple the disk

6 array unit to another disk array unit provided at a remote site,

7   wherein the memory stores a management table associating a plurality of

8 storage locations on the disk array unit to a plurality of emulated tape storage locations, the

9 emulated tape storage locations being associated with a plurality of emulated tapes, each of

10 the plurality of emulated tapes being associated with data in the disk array unit.

1   16. The disk array unit of claim 15, wherein the management table is used

2 to generate a disk-based tape library.

1   17. The disk array unit of claim 15, wherein the management table

2 includes an ID field, a tape storage field, a disk storage field, and a status field.

1   18. The disk array unit of claim 17, wherein the disk storage field includes

2 information on logical unit number and logical block address.

1   19. The disk array unit of claim 15, wherein the disk array unit includes a

2 computer readable medium, the computer readable medium including:

3   code for associating data stored in the first storage subsystem to a plurality of

4 emulated tapes;

5   code for generating a first management table associating a plurality of storage

6 locations on the first storage subsystem to a plurality of emulated tape storage locations;

7   code for moving one of the emulated tapes from a first element to a second

8 element simulatively;

9   code for transmitting data associated with the one emulated tape from the first

10 storage subsystem to the second storage subsystem via a communication link; and

11   code for removing the data associated with the one emulated tape from the

12   first storage subsystem upon confirming the transmission of the data associated with the one

13   emulated tape.

1   20.   The disk array unit of claim 15, wherein the disk array unit includes a

2   computer readable medium, the computer readable medium including:

3   code for generating a first management table associating a plurality of storage

4   locations on the first storage subsystem to a plurality of emulated tape storage locations;

5   code for moving one of the emulated tapes from a first element to a second

6   element simulatively;

7   code for transmitting data associated with the one emulated tape from the first

8   storage subsystem to the second storage subsystem via a communication link; and

9   code for removing the data associated with the one emulated tape from the

10   first storage subsystem upon confirming the transmission of the data associated with the one

11   emulated tape.

1   21.   A storage system for archiving data, comprising:

2   means for moving an emulated tape from a first element to a second element

3   simulatively without actually moving data associated with the emulated tape;

4   means for transmitting the data associated with the emulated tape from a first

5   disk-based storage device to a second disk-based storage device via a communication link;

6   and

7   means for removing the data associated with the emulated tape from the first

8   disk-based storage device.